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Appl. No. 09/932,198
Amdt. Dated July 26, 2004
Reply to Office action of March 26, 2004
Attorney Docket No. P15024/64645-1055
EUS/J/P/04-6153

REMARKS/ARGUMENTS

1.) Claim Amendments

The Applicants have amended Claims 1 and 11. Applicants respectfully submit no new matter has been added. Accordingly, Claims 1-14 are pending in the application. Favorable reconsideration of the application is respectfully requested in view of the foregoing amendments and the following remarks.

2.) Examiner Objections – Specification

The Examiner objected to the specification because of several informalities. Applicants thank the Examiner for his careful review of the specification. With regard to the Examiner's objection on page 9, line 10 wherein "API 116" is not referenced in the drawing, Applicants have accordingly amended Fig. 1. With regard to the Examiner's objection that on page 12, line 11 wherein reference number "306" is used to reference another element, Applicants have made appropriate correction to Fig. 3 as well. Applicants further appreciate the Examiner's suggestion that the letter "y" should be deleted and have accordingly amended the specification. Lastly, with regard to the Examiner's suggestion that the word "m-commerce" should be changed to "e-commerce", Applicants respectfully submit that "m-commerce" stands for "mobile commerce" and is different from "e-commerce." A favorable reconsideration is respectfully requested.

3.) Examiner Objections - Claims

The Examiner objected to Claim 1 because of informalities. Again, the Applicant appreciates the Examiner's thorough review of the claims. The Applicant has amended the claims as suggested by the Examiner in order to correct the informalities. The Examiner's consideration of the amended claims is respectfully requested.

4.) Claim Rejections – 35 U.S.C. § 103 (a)

The Examiner rejected claims 1, 5-6, and 9-12 under 35 U.S.C. § 103(a) as being unpatentable over Lappetelainen et al (US 6,671,495) in view of Hamilton-Piercy

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et al (US 5,802,173). Applicants respectfully traverse the Examiner's rejection and have further amended the independent claim to more clearly and distinctly claim the subject matter which Applicants consider as their invention.

As fully disclosed, the present invention discloses and claims a high-density radio system that is scalable, economical and supports very large wireless multimedia networks in a flexible manner. As further disclosed, such high-density radio systems, for example, include Bluetooth coverage in an auditorium, concert halls, stadiums, race tracks, sport arenas where wireless terminals (e.g., PDAs) can communicate with the high-density radio system to view video feeds, real-time statistics, internet access, or map/location assistance (e.g., restroom location). Since such demands and requirements may change frequently, the high-density radio system provides scalable and flexible coverage by providing an access point controller having a master connection handler and a sector quality of service handler. Rather than connecting the access pointer controller directly to multiple transceivers (or base stations), the access point controller interfaces with one or more multi-link controllers. Each multi-link controller is then further connected to two or transceivers wherein the multi-link controller then maps signals communicated between said two or more transceivers and said access point controller. As a result, the multiple transceivers become transparent to the access point controller and the scalable network configuration can be managed by adding or deleting individual transceivers without changing the access point controller. Furthermore, as further claimed by independent Claim 1, all of the transceivers connected to a particular multi-link controller are then coupled to a combiner for further communication with an omni directional antenna. In order to also ensure quality of service within the claimed high-density radio system, the sector quality of service handler in the access point controller then manages the quality of service provided to each user within said network as well as each sector being served by the omni directional antenna.

Applicants respectfully submit that such a scalable high-density radio access system is not anticipated or render obvious by Lappetelainen, individually or in combination with, Hamilton-Piercy. Lappetelainen merely discloses a particular method

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for transmitting signal measurement data from a mobile terminal to an access point controller for obtaining more reliable analyses of measurement results. In that regard, Lappetelainen discloses different problems and network configuration and actually teaches away from the present invention by disclosing a direct connection between an Access Point Controller (APC) and an Access Point (AP). Additionally, as stated by the Examiner, Lappetelainen further fails to disclose or teach a multi-link controller coupled to the access point controller and further communicating with multiple transceivers wherein the multi-link controller performs the function of mapping signals communicated between the access point controller and the multiple transceivers.

The Examiner also incorrectly stated that Hamilton-Piercy disclosed "one or more Signaling and Control (SC, 224) units, which reads on claimed multi-link controller, communicably coupled to the radio base station (RBS) which reads on claimed access points. (See Figure 3.)" In describing Figs. 2 and 3 of Hamilton-Piercy, it clearly stated that all of the illustrated elements reside within a single RBS 207 (Hamilton-Piercy, Col. 11, lines 47-53, Col. 13, lines 42-50). This is further evidenced by the fact that the SC connects to the digital multiplexer (222 in Fig. 2 of Hamilton-Piercy) which then connects to the MTSO via an interface 221. Accordingly, the SC 224 cannot be used to coupled to multiple radio base stations since SC is an internal element within a particular RBS itself. Furthermore, nothing in Hamilton-Piercy discloses or teaches the claimed multi-link controller performing the function of mapping signals communicated between the claimed access point controller and the multiple transceivers thereby making the multiple transceivers transparent to the multi-link controller. In Col. 11, lines 54-47, Hamilton-Piercy merely states that "[m]obile signaling, control and alarm information is also extracted from multiplexer 222 and is used by the MTSO to control the radio transceivers and through them the mobile to maintain radio links established between them." Accordingly, other than stating that the SC extracts control signals from the multiplexer to control the radio transceivers, it fails to disclose or teach the recited multi-link controller function of mapping the communicated signals as currently claimed.

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As a result, Applicants respectfully submit that the cited references fail to anticipate or render obvious the present invention as claimed by now amended independent Claim 1 and a Notice of Allowance is respectfully requested.

The remaining claims depend from now allowable independent Claim 1 and recite further limitations in combination with the novel elements thereof. Therefore, the allowance of claims 2-14 is further requested.

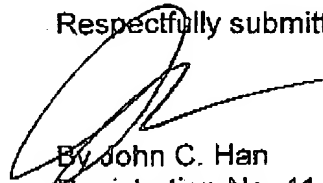
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CONCLUSION

In view of the foregoing remarks, the Applicant believes all of the claims currently pending in the Application to be in a condition for allowance. The Applicant, therefore, respectfully requests that the Examiner withdraw all rejections and issue a Notice of Allowance for all pending claims.

The Applicant requests a telephonic interview if the Examiner has any questions or requires any additional information that would further or expedite the prosecution of the Application.

Respectfully submitted,



By John C. Han
Registration No. 41,403

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Ericsson Inc.
6300 Legacy Drive, M/S EVR 1-C-11
Plano, Texas 75024

(972) 583-7686
john.han@ericsson.com

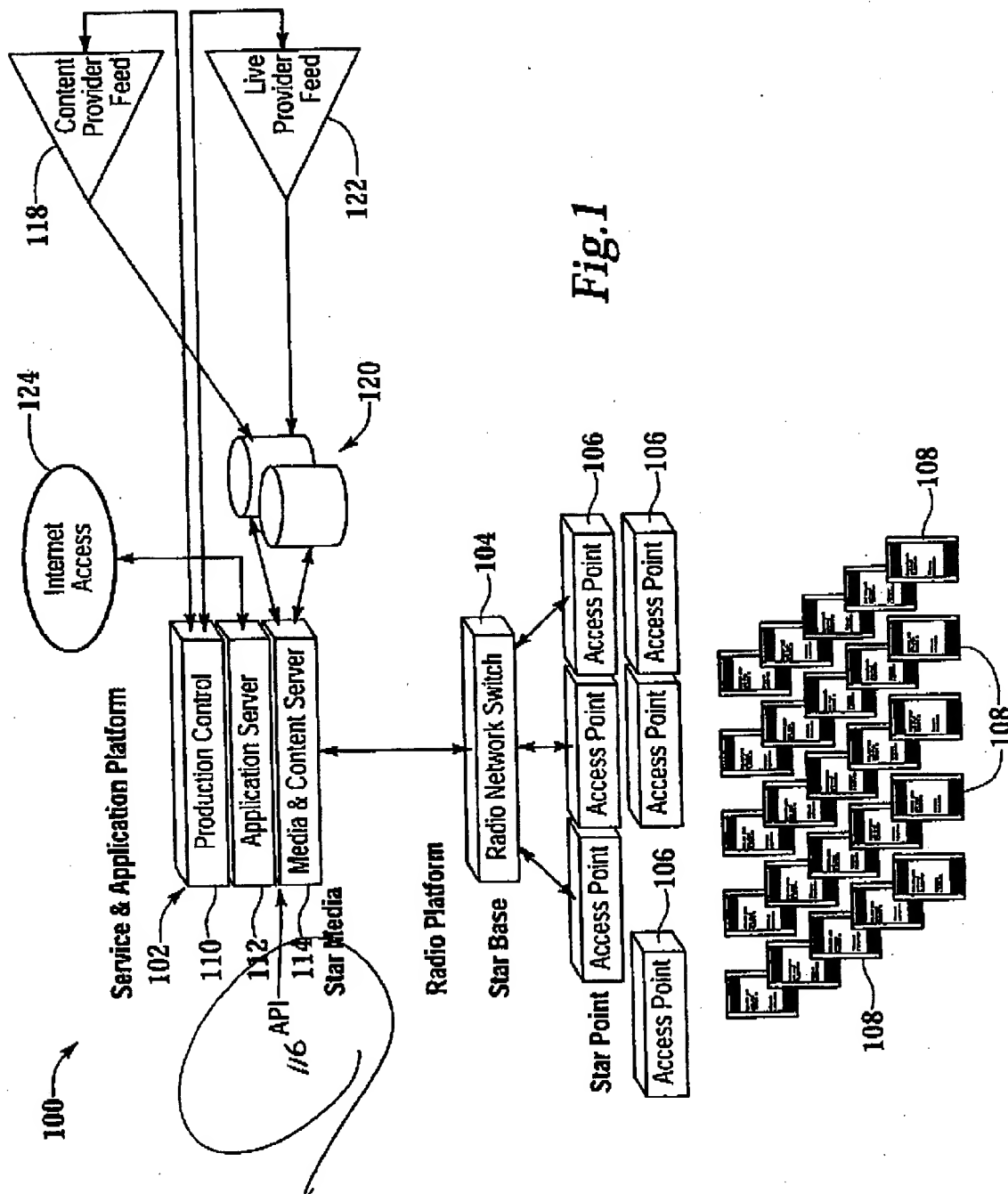


Fig. 1

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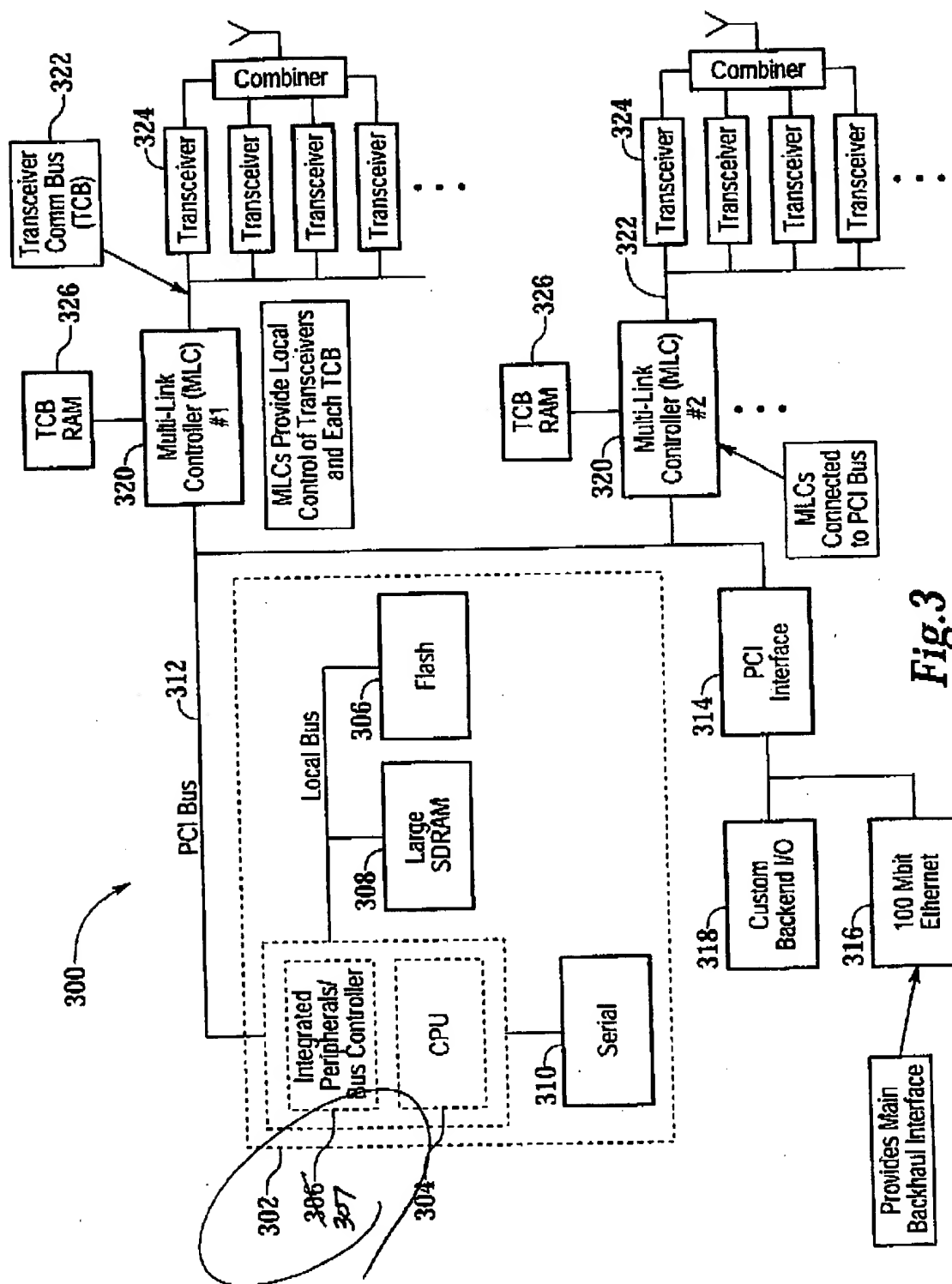


Fig.3